

On page 16, line 26, delete "09/EEE,EEE" and insert therefor --09/570,730--.

On page 16, line 27, delete "09/FFF,FFF" and insert therefor --09/569,531--.

On page 16, line 29, delete "09/GGG,GGG" and insert therefor --09/570,004--.

In The Claims:

Please add the following claims:

11. (New) An apparatus for decoding image data for a hardcopy document, comprising:

A1 a scanner for recording a scanned representation of the hardcopy document that includes a primary set of symbol data and a secondary set of encoding data; the primary set of symbol data providing a first channel of human readable information rendered on the hardcopy document; the secondary set of encoding data providing a second channel of machine readable information rendered on the hardcopy document;

a decoding module coupled to the scanner for providing a decoded form of the scanned representation of the hardcopy document to define a candidate set of symbol data; and

a rewrite module for rewriting, independent of the decoding module, the candidate set of symbol data using an event library and the secondary set of encoding data; the event library identifying likely failures encountered when the scanned representation of the hardcopy document is decoded.

12. (New) The apparatus according to claim 11, further comprising a module for decoding the secondary set of encoding data for use by the decoding module.

13. (New) The apparatus according to claim 11, further comprising a module for decoding and decompressing the secondary set of encoding data for use by the decoding module.

14. (New) The apparatus according to claim 11, wherein said rewrite module further comprises means for computing a shortest path of a product graph of the candidate set of symbol data and the secondary set of encoding data.

15. (New) The apparatus according to claim 14, wherein said computing means performs a shortest path computation that includes a two-pass dynamic programming computation.

16. (New) The apparatus according to claim 15, wherein the product graph is defined by:

nodes that correspond to both position in the candidate set of symbol data and the secondary set of encoding data; and

arcs that satisfy the candidate set of symbol data and the secondary set of encoding data.

AI 17. (New) The apparatus according to claim 16, wherein the product graph is further defined by symbols in the candidate set of symbol data that are matched with events from an event library.

18. (New) The apparatus according to claim 11, wherein the decoding module performs dynamic programming to decode the scanned representation of the hardcopy document.

19. (New) The apparatus according to claim 11, wherein the secondary set of encoding data is encoded using one of separation coding, block coding, and convolution coding.

20. (New) The apparatus according to claim 11, wherein the decoded form of the scanned representation includes certainty estimates of the candidate set of symbol data.

REMARKS

This Preliminary Amendment is submitted prior to examination for the purposes adding serial numbers not available at the time of filing. Also, this Preliminary Amendment adds new claims 11-20.

In addition, this Preliminary Amendment corrects the apparent omission of Figure 13 identified in a "Notice To File Missing Parts Of Nonprovisional Application" mailed on